AccuScan II

Master Antenna Control Software

Overview

The AccuScan II Master and Slave Remote Control System provides remote control of MRC digital ENG receivers, IRDs and central receive antenna systems by means of dial-up, 2-wire, or 4-wire dedicated communications circuits. The system is able to simultaneously communicate with up to four separate remote sites. Each remote site can support up to two collocated steerable antenna and ENG receiver/IRD systems.

The AccuScan II includes many new features, specifically incorporated to enhance the remote control and monitoring of modern day digital ENG receive systems. It is compatible with all MRC central ENG receive systems such as the ProScan II, ProScan III, UltraScan II, Ellipse, MicroScan II, and wide variety of SectorScan antenna systems:

- AccuScan II software may be used with computers running Windows 2000, XP, and XP Professional
- Automatic receive level gain control to protect both antenna and receiver LNAs from digital overloading conditions
- Optional "In-Screen" AccuSpec™? spectrum viewer display with user selectable narrow and wide RF channel bandwith settings for up to two collocated ENG receivers
- No additional software costs for future multi-site expansion applications

Features

- User friendly single page Graphical User Interface control for all of the ENG remote site receive equipment
- Master control software that provides the customer easy site configuration set-up for all MRC central ENG receive antennas, receivers, and IRDs.
- Remote slave controller accommodates both parallel and/or serial interface control of antennas and receivers
- Link Quality user selectable timed interval histogram display
- Color coded multi-parameter numerical and bar graph monitoring display of receiver RCL, COFDM decoder C/N (carrier to noise), digital post-BER, and MRC's digital LQ Link Quality assessment.
- Optional "in-screen" AccuSpec spectrum viewer display with user selectable narrow and wide RF channel bandwith settings for up to two collocated ENG receivers
- Optional GPS antenna autotracking using NMNA data standard for Troll and MRC airborne Pod systems
- New ProScan III "realtime" antenna feed and pedestal monitoring diagnostics to assist User with potential troubleshooting of the systems electrical performance
- Built-in latitude and longitude location distance, and receive site calculator with "Go-To" antenna control function
- Master controller Touch Screen user interface (Note: Touch screen monitor required)
- Optional independent slave expansion controller chassis for additional co-located antenna / receiver / IRD system.
- Control up to 4 sites simultaneously from 1 master controller
- User selectable configuration set-up password protection

AccuScan II Master Antenna Controller

Antenna Controls and Monitoring

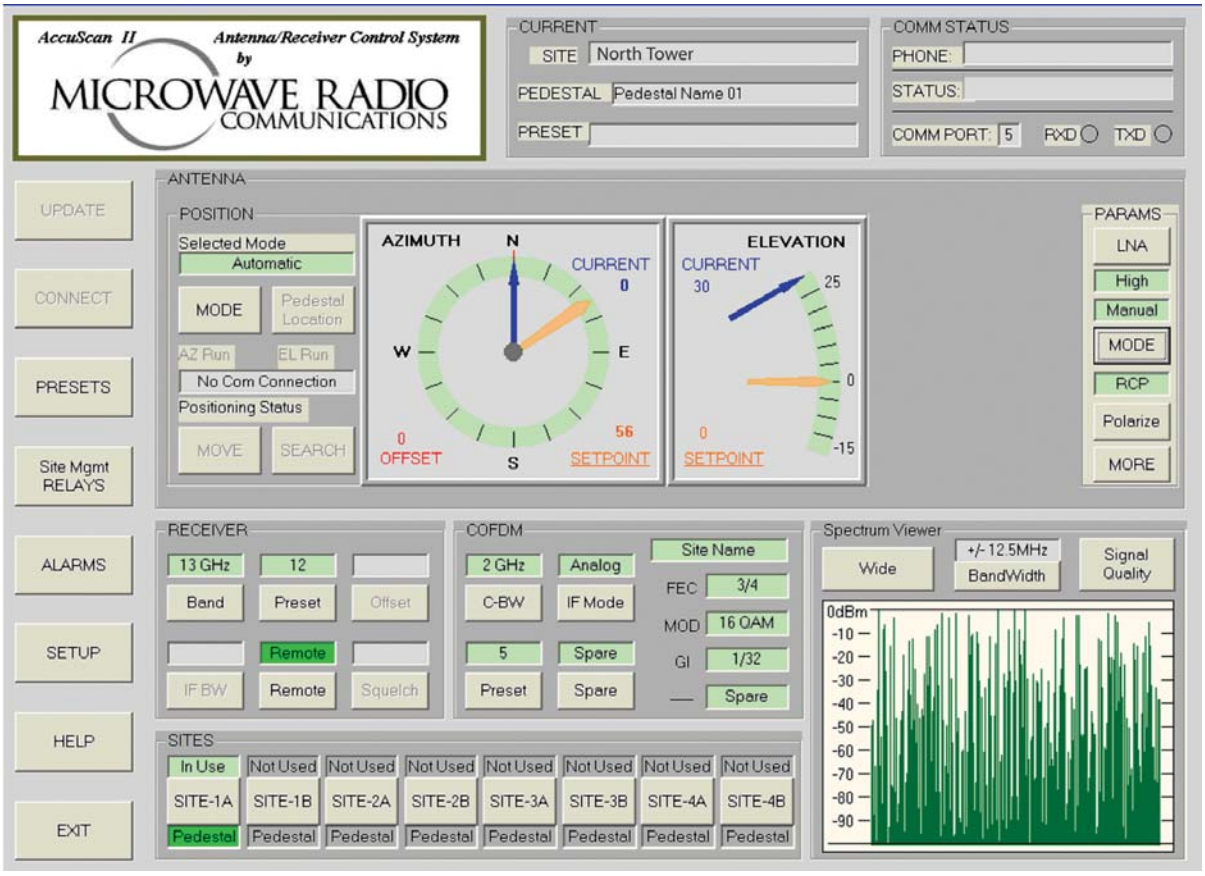
- Drag and drop automatic "Go To" antenna compass display with manual over-ride control
- Quad polarization, multi-band channel selection and 70 MHz IF filter bandwidth controls
- Steerable antenna azimuth & elevation position indicators
- Quadrant style antenna selection control for SectorScan™? and QuadSector™? systems
- Automatic or manual receive antenna LNA gain control
- 4 x 1 mutually exclusive RF filter switching control when receive antenna feed is equipped with serially controlled RF bandpass/channel filter switching network
- RF bandpass and/or channel filter bypass when receive antenna feed is equipped with serially controlled RF bandpass and/or channel filters
- 3 auxiliary AccuScan slave back panel "form-C" dry contact relay closures (.5 amp) configurable for alternate action, mutually exclusive, or grouped switching combination
- Up to 99 user selectable presets for retrieval of antenna position and receiver channel/COFDM pedestal bandwidth recall

Receiver Controls and Monitoring

- ENG transmitter "service name" display indicator
- ENG receiver RF channel band plan selection control
- Analog and Digital receive carrier level (RSL) indicators
- IF filter switching selection control for up to three 70 MHz IF filters
- FEC, digital modulation type, and GI (guard interval) IRD indicators
- MRX4000 COFDM receiver/MPEG-2 decoder IRD system "Reset" control
- Numerical and bar graph monitoring display of receiver RCL, COFDM decoder C/N (carrier to noise), digital post-BER, and LQ (Link Quality)
- Link Quality (LQ) histogram display
- Spectrum Viewer display with three position expandable RF display range

SPECIFICATIONS

Antenna Polarization:..... H, V, RCP, LCP
LNA Gain Selection:..... High/Low/Automatic
Antenna Band Select: ..... 2/2.5, 6/7, 12/13 GHz
Remote Site Controller:..... Local or Remote mode
Site Management Relay Contacts (antenna):..... (3)
Auxiliary Local/Slave Relay Contacts:..... (3)
Presets for Antenna location/Receiver settings:. (99)
Receiver IF Bandwidth: 15/10/8 MHz, or 15/8/6 MHz
Receiver (analog) Squelch: ..... On/Off
Modem Communication Ports:..... (4)
Analog / digital receive carrier level (RCL) Indicators: –90 dBm to –30 dBm
Post BER color-coded bar graph scale: $.10^{-3}$ to 10^{-8}
Analog color coded bar graph scale: (factory configured)
Modems (factory configured and tested) for dial-up: ` 2, or 4 wire communication connection



AccuScan II Master Control Screen

MRC
A Vislink Company

Microwave Radio Communications
101 Billerica Avenue, Building #6
North Billerica, MA USA 01862-1256
Tel: +1.978.671.5700
Fax: +1.978.671.5800
e-mail: info@mrcbroadcast.com

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www.mrcbroadcast.com

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